SCIENTIFIC AMERICAN.

THE ADVOCATE OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME I. NEW-YORK, THURSDAY, SEPTEMBER 4, 1845. NUMBER 2.

THE
SCIENTIFIC AMERICAN,
PUBLISHED EVERY THURSDAY MORNING, AT NO. 11 SPRUCE STREET, NEW YORK, NO. 16 STATE STREET, BOSTON, AND NO. 21 ARCADE, PHILADELPHIA,
(THE PRINCIPAL OFFICE BEING IN NEW YORK,)

By RUFUS PORTER.

Each number will be furnished with from two to five original engravings, many of them elegant, and illustrative of *New Inventions*, *Scientific Principles*, and *Curious Works;* and will contain, in addition to the most interesting news of passing events, general notices of the progress of Mechanical and other *Scientific Improvements;* American and Foreign Improvements and Inventions; Catalogues of American Patents; Scientific Essays, illustrative of the principles of the sciences of Mechanics, Chemistry and Architecture; useful information and instruction in various Arts and Trades; Curious Philosophical Experiments; Miscellaneous Intelligence, Music and Poetry.

This paper is especially entitled to the patronage of Mechanics and Manufacturers, being the only paper in America devoted to the interests of those classes; but is particularly useful to farmers, as it will not only apprise them of improvements in agricultural implements, but instruct them in various mechanical trades, and guard them against impositions. As a family newspaper, it will convey more useful intelligence to children and young people, than five times its cost in school instruction. Another important argument in favour of this paper, is, that it will be worth two dollars at the end of the year when the volume is complete, (Old volumes of the New-York Mechanic, being now worth double the original cost, in cash.)

TERMS.—The "Scientific American" will be furnished to subscribers at $2,00 per annum,—one dollar in advance, and the balance in six months.

Five copies will be sent to one address six months, for four dollars in advance.

Any person procuring two or more subscribers, will be entitled to a commission of 25 cents each.

The Mechanic.

Mechanics! whose toil is the wealth of a nation,
Whose breasts are its bulwarks when danger is nigh—
Though humble your lot, and despised your vocation,
You have honour and worth that the world cannot buy.
The minions of wealth may affect to despise you,
Pronouncing you ignorant, sordid, and base, [you,
But the moment will come that shall teach them to prize
The scorn they have written, themselves shall erase.

Not theirs is the hand that can turn back the billow
That threatens to sweep o'er our altars and homes;
They may live in thebreeze that but plays with the wil-
But woe unto them, when the hurricane comes. [low,
They must call upon *you* in the moment of danger,
When the war-banner spreads its rude folds to the air,
When our homes are assailed by the hands of a stranger,
And valleys re-echo with cries of despair.

Where of Rome's faded grandeur her ruins are telling,
Where Athens' proud temples reflect back the sun,
In Palmyra's streets—now the jackal's tone dwelling—
Are recorded the triumphs by industry won.
There is not a nation where science has flourished,
There is not a land that the arts have adorned,
But your valour has guarded—your industry nourished—
Through glory and shame—tho' degraded and scorned.

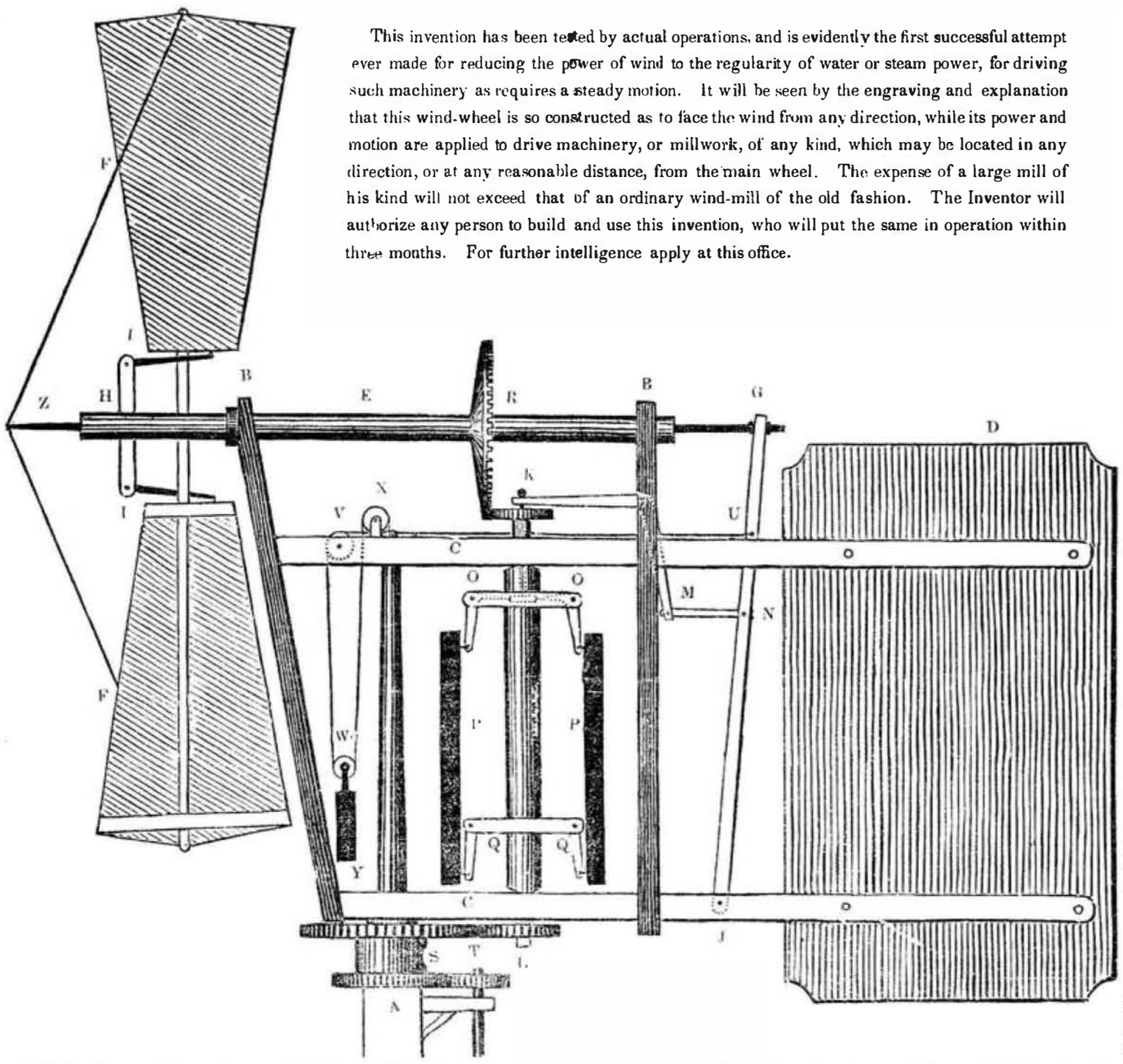
Your labour in peace, like a bright living fountain,
Sends rivers of wealth to replenish the earth,
And in war, like the storm-beaten rock of the mountain,
You ward off the blast from the land of your birth,
But when peace, like the sun, o'er your country is shining,
For the wealth you bestow they repay you with sneers,
And the wounds you have borne in her cause unrepining,
Ingratitude bathes with adversity's tears.

When the herald of fame, in the annals of story,
The deeds of a hero proclaim through the land,
The monuments raised to emblazon his glory,
And the deeds they record—are the works of your hand.
But what your reward when the conflict is ended?
Or where is your niche in the temple of fame?
The laurels you won, with another's are blended,
And darkness still rests on the artizan's name.

Yet bow not your hearts to the proud man's reviling,
More noble in sorrow, than he in his pride;
At each mark of disdain with true dignity smiling,
Your acts will rebuke when your lot they deride.
Let hope cheer your path, the despised and neglected,
Be virtue your shield when temptation is nigh;
By honour's bright code, be your actions directed,
Deserve and demand the respect they deny.

Then high be your aim, for the portals of glory,
By freedom unbarr'd, now disclose to the view
A tablet, whereon to emblazon your story,
An urn for the tears to your memory due.
When your country's proud star through futurity shining,
Beams bright with the deeds that her children have done,
May the loveliest wreath 'round her diadem twining,
Be that which her toil-worn mechanics have won.

THE SELF-REGULATING WIND-MILL.



This invention has been tested by actual operations, and is evidently the first successful attempt ever made for reducing the power of wind to the regularity of water or steam power, for driving such machinery as requires a steady motion. It will be seen by the engraving and explanation that this wind-wheel is so constructed as to face the wind from any direction, while its power and motion are applied to drive machinery, or millwork, of any kind, which may be located in any direction, or at any reasonable distance, from the main wheel. The expense of a large mill of his kind will not exceed that of an ordinary wind-mill of the old fashion. The Inventor will authorize any person to build and use this invention, who will put the same in operation within three months. For further intelligence apply at this office.

EXPLANATION.—On a stout upright post, A, is mounted a frame consisting of two posts, B B, and two beams, C C, with a vane, D. A horizontal shaft, E, is mounted on the two frame-posts, and from the head, or windward-end of this shaft, eight arms project which support eight sails, two of which, F F, appear in the drawing. These sails are so hung or mounted on the arms as to be moveable;—each arm being round and passing through two cross-cleats which are attached to each sail. The horizontal shaft being hollow, a small iron rod passes through it, extending from G to H, where it connects with eight short arms, I I. From the end of each short arm, a small rod extends back, and is connected to its parallel sail near the leeward corner thereof: so that by the sliding of the centre rod and arms to windward, the position of all the sails are changed, being thereby drawn up to the wind, that the main ~~wheel~~ may be put in motion by the wind. The leeward end of the centre rod passes through the head of a vertical lever, G, which is connected to the vane by a pivot at J, (the vane being supported by two pairs of cleats, with space enough to admit the lever to pass between.) A nut or flanch is attached to the centre rod, each side of the lever, that the rod may be moved forward and backward thereby. A short vertical shaft extends from K to L, being supported by the two beams. The *knee*, K M, is so mounted that one arm thereof is connected by a small rod to the vertical lever, G J, while the other arm connects with a vertical rod which extends down the centre of the vertical shaft, and connects with the ends of two knees, each of which is supported by the pivot O, between two short arms which project from the vertical shaft for that purpose. The ends of the other arms of these knees are connected to two vertical planks or iron bars, P P; these planks being also partly supported by another set of arms and knees, Q Q. The vertical shaft has a pinion at the top, which is turned by the geer-wheel, R, on the main shaft; and another pinion at the bottom, which communicates its motion to a horizontal geer-wheel, which is mounted on a short hollow cylinder, S, which turns on the main post, A, and carries a smaller geer-wheel, which gives motion to another wheel on the head of a parallel shaft, T. From this shaft, the power and motion of the wind-wheel may be carried and communicated to any mill or machinery, in any direction. A small rope is attached to the vertical lever at U, and passes thence over the pulleys, V W X, and down the centre of the main upright post, but passing out at the side thereof a few feet from the ground, that it may be hauled down occasionally, when the mill is to be put in motion. The pulley, V, is connected to an iron weight, Y, the use of which will be explained. By this arrangement it will be seen that when the rope is hauled down, the weight, Y, is elevated; but its own gravity prevailing, it draws forward the lever, which drives forward the centre rod, with the short arms, I I, and thus draws the sails to the wind, and the wind-wheel is put in motion, which communicates motion to the shaft, K L, and causes the bars, P P, to press outward, by centrifugal force. By this the motion is regulated; for, whenever the motion of the wind-wheel exceeds the requisite velocity, the centrifugal force of the bars, overcoming the gravity of the weight, Y, (which ordinarily rests on the beam) depresses the rod K, by which the other arm of the knee forces back the lever G, with the centre rod and short arms, so as to throw the sails partly out of the wind, thus preventing the increase of speed beyond the gauged rate. The arms of the wind-wheel are supported by wire braces, which meet the point Z.

COPPER.—In Buffalo and in Pittsburg they are about to establish works for smelting copper—the material to be obtained on Lake Superior. A much better location for such works would be at St, Louis. There is a large supply of excellent copper ore fifty miles from St. Louis and works established here for its manufacture would possess very great advantages over others that will be compelled to send thousands of miles for their ore. A very large buisness in the manufacture of copper might be successfully carried on at this place. As several of our worthy citizens are interested in the Meramec copper mines, we hope they will adopt means to have the buisness carried on extensively.—*St. Louis Era.*

TRUE GREATNESS OF MIND.—Tasso being told that he had a fair opportunity of taking advantage of a very bitter enemy;—"I wish not to plunder him," said he, "but there are things I wish to take away from him; not his honour, his wealth or his life—but his ill will."

BELLS.—The nearer bells are hung to the ground, other things being equal, the further they can be heard. Dr. Franklin has stated, that some years ago, the inhabitants of Philadelphia had a new bell imported from England, and in order to judge of the sound the bell was raised on a triangle in the great street of that city, and struck as it happened on a market day; when the people coming to market were surprised on hearing the sound of a bell at a greater distance from the city than they had ever heard any bell before, This circumstance excited the attention of the curious; and it was discovered that the sound of the bell when struck in the street, reached nearly double the distance it did when raised in the air.

THE SACO UNION says that in a single room, in one of the factories of the York Company, there are fifty young women—each of these the past four weeks has earned over twenty dollars, and one has actually earned and received thirty dollars.

NUMBER OF INHABITANTS TO THE SQUARE MILE. The United States furnishes a population of 14 to every square mile for the inhabited portions of the country and 7 to the square mile for the whole teritory embraced within the limits of the federal jurisdiction,—Contrast this present occupation of the soil with the population of the most thickly peopled portions of Europe, and it will be seen that there is ample room for us to increase our numerical strength, and not be crowded either Belgium has 280 to the square mile: Holland 254, and Great Britain and Ireland 206, Russia has but 28 to the square mile, and Sweden and Norway only 13. France has 158; Italy 175; Germany 147; Austria 127; and Switzerland 133

INCREASE OF CRIME.—During the last forty years, commitments for crime have increased from 5,000 to 31,000 per annum, in England, although the population has increased only about sixty per cent. during the same period.

CATALOGUE OF AMERICAN PATENTS
ISSUED IN 1844.

CLASS I.—*Agriculture, including Instruments and Operations.*

[Continued.]

Winnowing Machine—Thomas Cole and John Littlefield, Allensville, Ind., Aug. 7th.

Do. Thomas Chandler, Rockvile, Ill. and Asa D. Reed, Miles, Mich,, Dec. 7th.

Winnowing, wheat fans—David Watkins, Port Republic, Va., Feb. 2d, and William Stanley, Jamestown, N. C., Nov! 18th.

CLASS II.—*Metallurgy, and manufactures of metals and instruments therefor.*

Anvils, machine tor making—John Taylor, Shadegap, Penn., Jan. 31st.

Bolt in door-fastenings, mode of operating—Albert Bingham, Boston, Mass., June 5th.

Buckles—Julius W. Hatch, Manlius, N. Y., Feb. 20th.

Do. Isaac B. Verplanck, Mentz, N. Y., March 9th.

Do. Henry Lawrence, Manlius, N. Y., July 13th

Cutlery, cleaning and polishing—William Vine, New York, N. Y., Feb. 28th.

Curry Comb—Thomas Wilkinson Cambridge, N. Y., Aug. 16th.

Drill or Borer, governing the feed off—John B. Grout, Birmingham, Mich., May 30th.

Drilling Machines—Amos Morgan, Wooster, O. May 13th.

Forges, blacksmiths'—Frederick A. Stuart, Catherine, N. Y., July 1st.

Furnace, reverberatory, for smelting or puddling iron, Wm. Green, Woodbridge, N. Y., Jan. 16th.

Furnace for Smelting Iron—Leman Bradley, Sharon, Ct., Nov. 18th.

Machinery for trimming hinges, butt blanks—Cyrus Kenny, Troy, N. Y.

Moulds for butt hinges—Benjamin F. Harley and John D. Morris, Philadelphia, Pa., Feb. 12th.

Planing and dressing the knuckles on the inner sides of butt hinges—Gage Stickney, Blackwoodtown, N. J., Dec. 19th.

Machine for bending the knuckles of wrought iron butt hinges—Cyrus Kenny, Troy, N. Y., Aug. 23.

Machine for making wrought iron butt hinges—Cyrus Kenny, Troy, N. Y., Aug. 7th.

Invention of Flask for moulding hinges—Thomas Loring, Gloucester, N. J., Feb. 7th.

Coating iron and copper with tin and other metals—Edmund P. Morewood, Great Britain, now in New York, Sept. 17th.

Process of reducing iron and other ores to the metalic state, by coating them with certain fluxes—James Tower, Madison, O., Dec. 7th.

Process of manufacturing iron and steel—Thomas Southall and Charles Crudgington, Kidderminster, Eng., Feb. 8th, U. S. A. Sept. 14th.

Mode of obtaining wrought iron from the ore—Simeon Broadmedow, N. Y., May 30th.

Labels for mail-bags—Oren S. North, New Britain, Ct., March 13th.

Mortise for door-latches—Wm. Wilson, Northampton, Mass., Nov. 26th.

Metalic laths, for fire-proof ceilings of houses—Palmer Sumner, New York, April 25th.

Door-lock—Linus Yale, Sprinfifield, Mass, June 13th.

Improvement in locks for doors, banks, safes, &c.—Marcus R. Stephenson and Oliver Edwards, Boston, Mass., April 17th and July 9th.

Combination door-lock—Sabin Colton, Philadelphia, Pa., Jan. 6th.

Combination door lock—M. R. Stephenson and O. Edwards, Boston, Mass., April 17th.

Combination door-lock—Robert Newell, New York, Sept. 17th.

Door-lock, permutation, for vaults, &c.—D. W. Maples, Geneva, N. Y., Dec. 4th.

Manufacture of metal—Arthur Wall, Great Britain, issued in England Nov. 18th, 1843, and in the United States Aug. 10th, 1844.

Method of making patterns for casting hollow ware—Ezra Ripley, Troy, N. Y., Aug. 31st.

Feeder for nail-cutting machine—Caleb Tobister, Allegheny, Pa., Dec. 31st.

Apparatus for separating, washing, or dressing ores—Nicholas Troughton, England, issued in Eng. July 23d, 1842, in the U. S. July 22d, 1844.

Arranging and sticking pins into paper—De Grasse Fowler, North Bradford, Ct., Sept. 20th.

Machinery for manufacture of lead pipes—Charles and George E. Sellers, Cincinnati, O., March 9th.

Improvement in door-plates—J. H. Grout and F. M. Ray, New York, March 20th.

Method of making door-plates and signs, of separate types, &c.—Edmund Morris, Philadelphia, April 25th.

Spike machines—Samuel Reynolds, Bristol, R. I., July 26th.

Manufacture of steel—S. Broadmeadow, Now York, May 25th.

Method of making vessels of soft metal—John Rand, August 7th.

CLASS III.—*Manufactures of fibrous and textile substances, including machines for preparing fibres of wool, cotton, silk, fur, paper, &c.*

Weaving tuscan braid—Elisha Fitzgerald, New York, Oct. 16th.

Portable bonnet—Thomas Hammond, New York, Oct. 30th.

Apparatus for pressing bonnet tips—Thos. Kendall, New York, Sept. 3d.

Carding machine—self-stripping card for carding fibrous substances—H. Barbour and J. Gleason, Lowell, Mass., Dec. 4th.

Mode of brushing and winding cloth—Reuben C. Varnel, West Somers, N. Y., March 13th.

Invention of machinery for folding and measuring cloth—Silas C. Durgin, North Chelmsford, Mass., March 9th.

[To be continued.]

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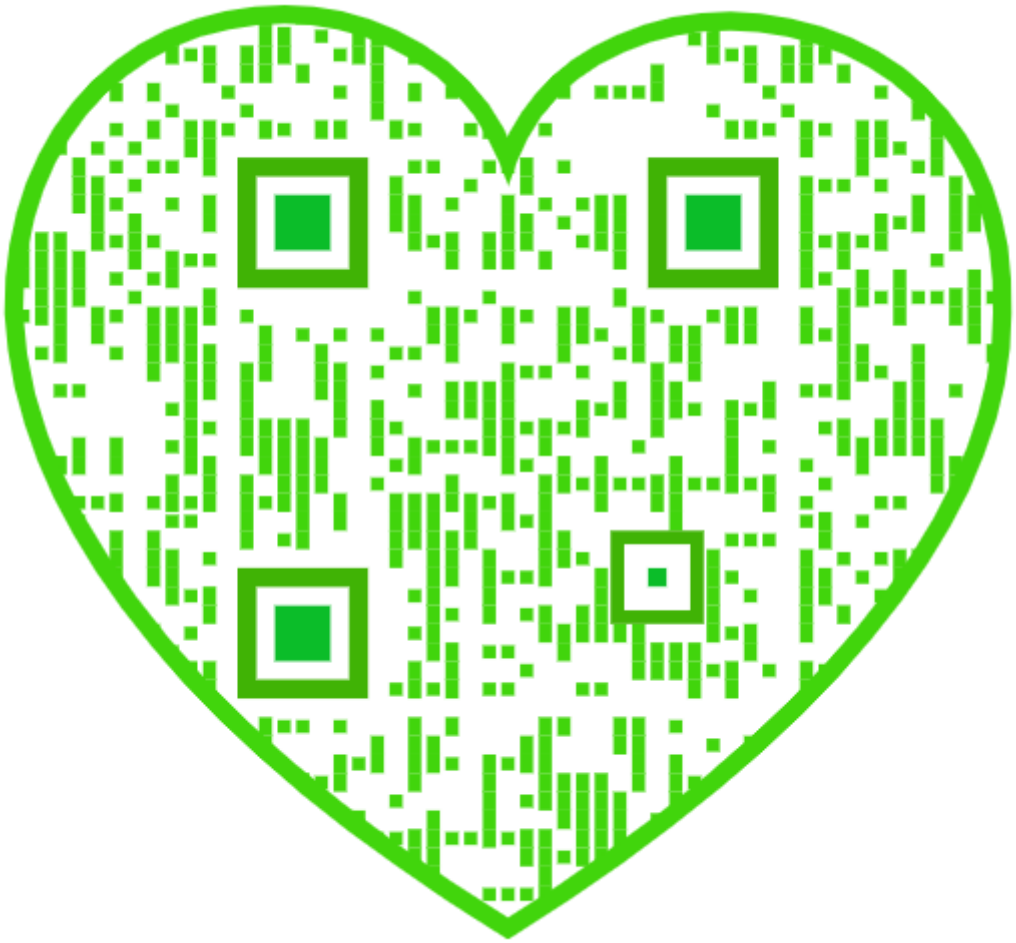
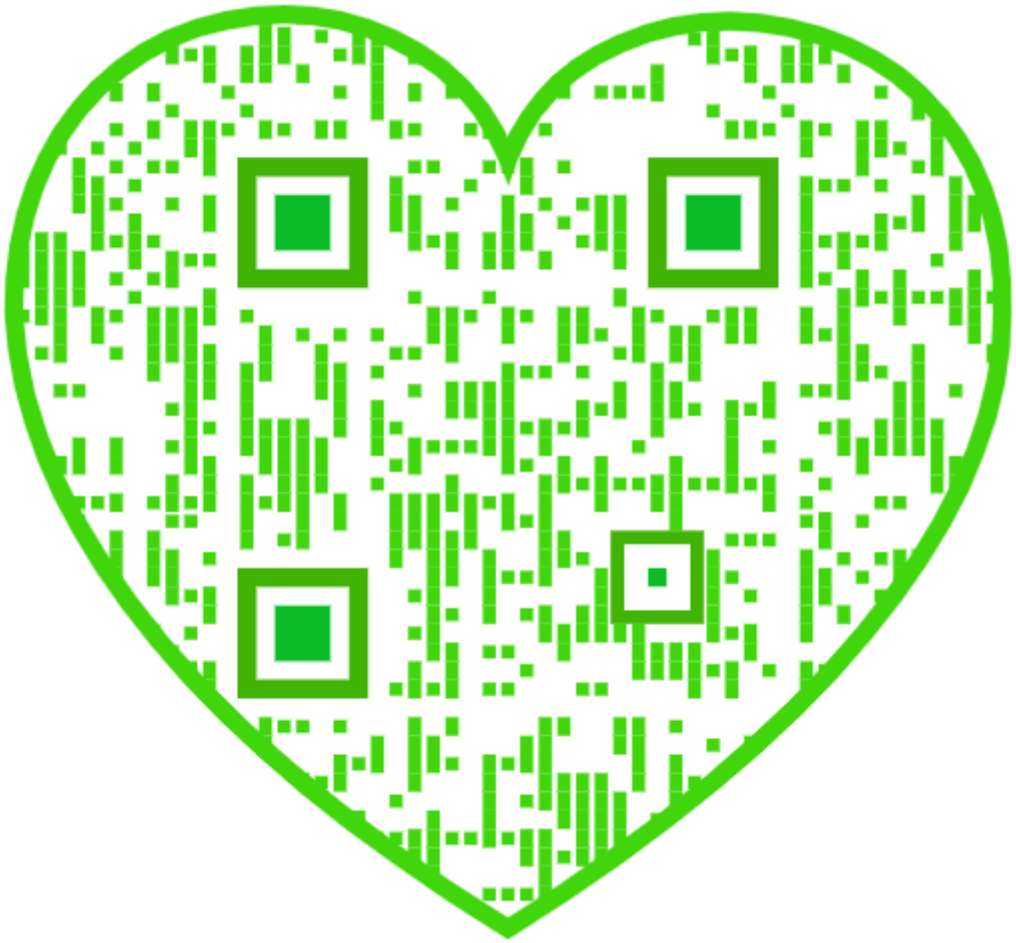




SCIENTIFIC AMERICAN

NEW-YORK, THURSDAY, SEPT. 4.

A GUARANTEE.

Whereas, Mr. RUFUS PORTER has commenced the publication of a scientific weekly paper, entitled the "*Scientific American*," and under apparently favourable circumstances; and whereas, the confidence of the public in new papers has become in some measure impaired, by the discontinuance of certain newspapers before the subscribers therefor had received the full value of the money advanced: now, therefore,

Be it known to all whom it may concern, that we, the undersigned, do hereby guaranty the continuance of the publication of the "Scientific American" for the term of at least one year from its commencement.

JONATHAN RICHARDSON,
WM. J. SPENCE,
WILLIAM FOSTER.

Certificate.—We are personally acquainted with the persons whose signatures are affixed to the foregoing guarantee, and believe them to be gentlemen of respectable standing and responsibility. JOHN WESTALL & Co.

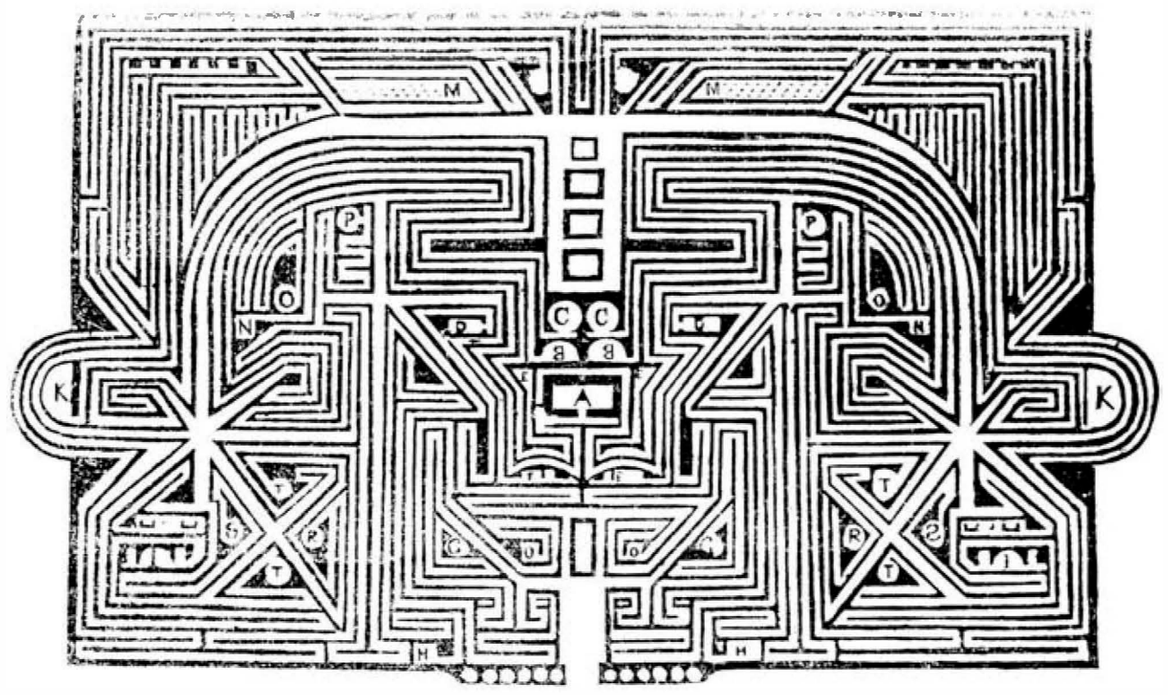
First Principles of Mechanics.

In our last number we introduced a pendant ball by way of illustrating the action, reaction, and counteraction of gravity and inertia. And in consideration of the vast importance of a thorough knowledge of these principles we have procured for this number a cut representation of the pendant ball, which we have introduced, and shall endeavour to be more explicit in our theoretic explanations.

If the ball is suspended by a cord or wire from the hook A, the ball will in consequence of the force of gravity, assume a position directly under the hook, and hold the cord by which it is suspended, in a position at right angles with the horizon.

The reason of this is that the ball by its weight, or the force of gravity, tends towards the centre of the earth, and its present position is precisely in a direct line between the hook and the earth's centre; and at the point nearest to the centre, that the ball can possibly approach while thus suspended. Now if this ball be moved horizontally or rather curvilinearly to C, and then let go, being restrained by the cord from descending according to its inclination, directly towards the earth, it naturally seeks the lowest possible point, and thus returns rapidly to its first position. In this instance, gravity in moving the ball from C to L, has overpowered inertia, and in consequence of this motion, inertia has become momentum; and now that the ball has approached the lowest point, and the influence of gravity with regard to the motion of the ball, being diminished in consequence of its direction being at this point nearly horizontal, the momentum, which the ball has acquired in its descent thus far, now carries it past this point L, and before the increasing resistance of gravity shall have been sufficient to stop the ball by overcoming this momentum, the ball will have approached to D. Then again gravity predominates and hurries the ball to L, and again momentum drives it forward to E, a little short of its starting point.—Again gravity returns the ball to L, and momentum pushes it forward to F. In this manner gravity and momentum continue the strife of alternate ascendency, till the ball has vibrated to the points G. H. I. J. and K, and finally rests at L. In the vibration of the ball, as above described, the alternate influence of gravity and momentum, are so uniform and equally balanced, that were it not for the resistance of the atmospheric air, and some little friction in the play of the cord, the motion would be perpetual. It is the uniformity of action which gives regularity to the movement of the pendulum of a clock, by which the other movements of a clock are also regulated. But the velocity of the ball, in its vibrations, depends much on the length of the cord or wire by which it is suspended. If this cord be but one foot in length, the ball will perform twice as many vibrations in a given time, as it will with a cord four feet long. The reason of this difference is, that when the cord is longer, the inclination of the curve at the extremity of the vibration is less, and consequently the force of gravity in the direction of the motion is less; and of course requires more time to overcome the *inertia* of the ball, in putting it in motion, and *momentum* in stopping it. If the distance from the hook, or point of suspension to the centre of the ball, be 39 1-7 inches, the vibration will be 60 per minute. The time required for each vibration of the ball does not much depend on the extent of its motion—the space over which it passes in either direction—whether it be one foot or two feet, more or less: for if the extent of its motion be greater, the inclination of its direction at the extremities of its vibration, is also greater, and consequently the direct force of gravity being greater, the velocity of the ball from point to point is also greater, and nearly if not precisely in proportion to the distance over which it moves. Hence may be seen the peculiar adaptability of the pendulum for measuring time.

CITY OF JUNGO.



A PLAN OF THE CITY OF JUNGO; supposed to be situated about 95 degrees East of the North Pole. The streets of this City are so arranged that it is difficult for a stranger to find his way from one part of the city to another, especially from the front gate to the Capitol, near the centre. This plan will be found exceedingly useful in illustrating the danger of trusting to appearances, and those who may attempt to trace this principal route, will not fail of finding an interesting amusement, or of being subject to sundry pleasant jokes, in the course of their progress, by frequent reference to the following

EXPLANATION.—A, Capitol. B B, Banks. C C, Gardens. D D, Churches. E E, Post Offices. F F, Hotels. G G, State Prisons. H H, Watch Houses. I I, Livery Stables. J J, Markets. K K, Theatres. L L, Batteries. M M, Parks. N N, Public Baths. O O, Circusses. P P, Refectories. Q Q, Colleges. R R, Soda Rooms. S S, Oyster Rooms. T T T T, Wells.

Illustrations of Chemistry.

No man can create, nor anihilate any particle of matter; but can decompose compound bodies, and by new combinations of their ingredients form other bodies or substances, entirely different in their natures, properties, and appearances. All bodies are either simple, or are composed of simple substances; and no simple substance can be decomposed, nor materially changed but by combination with other bodies. Thus iron, in its pure and natural state, is hard, brilliant and very adhesive; but by its combination with caloric, it becomes fluid; combined with sulphur and oxygen, it becomes a transparent crystal; combined with oxygen alone, but in different proportions, it appears in the form of red or yellow ochre; combined with the prussic acid, it becomes a deep blue, known as prussian blue; combined with sulphur, oxygen and hydrogen, it becomes transparent liquid; and the additon of a little gallic acid, again changes it to black ink. Plumbago, or black lead, is a combination of iron and carbon. Iron also enters into the composition of glass;—gives the red colour to the blood of animals; and has been known to assume all the colours of the rainbow in regular order, by its combination with different proportions of oxygen and carbon, in a single piece of slate stone.

While on this subject, we shall give a few simple experiments, which may be readily performed by any person—will afford amusement as well as instruction to the scientific youth, and will further illustrate the importance of the science of chemistry.

To any small quantity of sulphuric acid, in a phial, add double the quantity of water, and as much of iron filings as the mixture will dissolve. When the iron is added, an ebulition will occur, in consequence of the liberation of hydrogen gas from the water. When the boiling has subsided, the liquid is supposed to be saturated with the iron, and may be poured or strained off from the sediment. With this solution, which is neutral and harmless, wet a piece of paper, and it will remain colourless when dry; but afterward wet the paper with a little solution of pearlash or saleratus, and it will change instantly to a deep and permanent buff yellow. Wet another part of the paper with a dilute solution of prussiate of potass, and it will be changed to a blue. Again wet other parts with colourless infusion of nut galls, and it will be changed to black or ink colour. Put a small quantity of each of the three last mentioned liquids in three drinking glasses; then drop but a single drop of the solution of iron, into each of them, and the liquids will be instantly changed to blue, yellow and black.

EVERY SUBSCRIBER AN AGENT.—We have often observed in sectarian papers, a general request that all clergymen of the same denomination, should act as agents for the paper; and by such means, some papers have attained to an immense circulation. Not having any similar available advantage, we would solicit the favour of every honest mechanic who may receive this paper, to use his influence in our favour, and induce as many more as possible to subscribe for it. All favours of this kind will be duly appreciated.

OLD NEWS.—Being desirous of embodying in this paper, a great variety of interesting statistical and other items of intelligence, we trust our readers will not be surprised to find in this number, some items, the substance of which they may have seen in other papers some days earlier. Each reader will please to consider, that although he may have read some of these items, yet perhaps his neighbour has not, and they will therefore be new to him. We shall soon fetch up the arrearage of news, and then all will be fresh and fair.

OUR PROMISES.—We should have given a particular description of Davenport & Bridge's improvement in rail-road cars this week; but the engravings not being ready, we have substituted the labyrinthian curiosity, the City of Jungo, the bewilderology of which has no parallel. Our amusement-loving readers will not regret this variation of arrangement.

Severe and Destructive Lightning.

There has not probably within the memory of man, been a season in which excessive heat has so long prevailed, nor in which so many instances of the terrific effects of lightning has occurred, as within a few weeks past. Of the latter we shall record in a brief manner, a few instances which have come to our knowledge. Of buildings which have been struck, and more or less shattered, are the houses of the late J. B. Titcomb, Newburyport: the south church in Andover, Mass.; the house of Mr. William Manning of Ipswich; the house of Mrs. Field in Manchester, Mass.; the barn of Wm. Barker, in Chatham, N. H. and another barn in the same town; a barn in Greenland N. H.; a dwelling house and two barns in Abington; Dr. Beecher's church in Salem St. Boston; also several houses in Fayette St. the house of Capt. H. Taylor in Yarmouth, Mass.; the house of Ezra Hall in North Dennis; the house of Mr. Whildon in South Dennis; also a barn owned by Mr. Kelby Chase; a barn belonging to L. Howes in East Dennis; the house of Capt. I. Lewis at Centreville:—of S. G. Sears at Hyannis Port:—of Eben Scudder at Maston Mills;—a salt mill at Brewster (also two schooners lying at Bass River.) Six locust trees were struck at about the same time at East Haverhill. Several houses in N. Haven have been struck and several vessels at sea. Several of the buildings above mentioned were burned. We also hear of the loss of several lives. The electric fluid has also been unusually fatal in Europe; a person and his horse were struck dead near Hornflecer: the town of Welleschien in Bohemia, was struck at five different places at the same moment. Forty-five houses and twenty-five barns had been struck and consumed. Twelve or more persons in various places have been killed.

P. S. Since writing the above, the following additional instances have come to hand. In Hingham, Mass., two dwelling houses were struck by lightning last week: also the print works at Bristol; a barn in Fitchburg, and another in Hubbardston were struck and consumed;—a house in Gardner, and a chair shop;—A barn in Templeton, consumed; a meeting house and several houses in Templeton were struck; a barn at Lunenburg consumed. At Fort Richmond, two dwelling houses, a barn, a store and schooner were struck; also two houses near Norristown, and a barn in Easton: the latter was consumed. Several persons in different places were injured, and one was killed by the electric fluid. The Tremont House at Littleton, Mass., was struck and consumed on Saturday week.

A HOAX.—An Indiana editor has been made to believe, that a Mr. Warren has made an improvement in the art of stereotyping, which puts it in the power of every printer to stereotype whatever he chooses in an almost incredibly short space of time, at little or no expense, and with the utmost precision and accuracy. The composition of which the plate is made is nearly as hard as iron, which it resembles a great deal, and can be melted on a common fire as easily as lead. The gullibles are copying the article extensively.

CAPITAL PUNISHMENT.—Mr. Bevongen says, in his report to the French government, that the punishment of death had been abolished in Tuscany for twenty-five years; and that it had so improved the character of the people, that the prisons were empty; only five murders had been committed in the kingdom for twenty years after the abolishment of that punishment.

HACK FARES IN BOSTON.—A correspondent of the Tribune, writing from Boston, says on this subject, that established prices of fares from the hotels to the several depots, is in all cases 25 cents. *We* can inform him, however, that the "established price" of fares in the coaches of Cheney, Averill & Co., No. 9 and 11 Elm-street, is only twelve and a half cents, for any distance not exceeding one mile.

OUR NEXT NUMBER will contain the commencement of a series of instructions in the art of Painting: also, a piece of Music, which is excluded this week by press of other matter.

Remarkable Prophecy.

The following extract from a work published in Philadelphia twenty-four years ago, by Oliver Evans, is furnished to us by a paper of that city.

It appears that Mr. Evans, who contributed largely to the present advanced state of improvement in mechanic arts, conceived or entertained the idea of steam waggons and railroads anterior to the year 1773: for shortly after this period we find him applying to the Legislature of Pennsylvania and Maryland for aid to carry into effect his views on these subjects. The first rejected his memorial, or paid no attention to it, deeming its author INSANE! The last granted him a patent for fourteen years; but from the want of public confidence in the practicability of his schemes, and his own want of means, this patent was of no use to him. The Pennsylvanian says he lived and died comparatively poor and neglected, and was compelled to leave all his vast conceptions and designs to be executed by smaller minds and later days, as almost all the benefactors of our race have had to do before him.

"The time will come when people will travel in stages moved by steam engines, from one city to another, almost as fast as birds fly, fifteen or twenty miles an hour.

"Passing through the air with such velocity, changing the scene in such rapid succession, will be the most exhilarating, delightful exercise. A carriage will set out from Washington in the morning, the passengers will breakfast at Baltimore, dine at Philadelphia, and sup at New-York the same day.

"To accomplish this, two sets of railways will be laid, so nearly level as not in any place to deviate more than two degrees from a horizontal line, made of wood or iron, or smooth paths of broken stone or gravel, with a rail to guide the carriages, so that they may pass each other in different directions, and travel by night as well as by day; and the passengers will sleep in these stages as comfortably as they now do in steamboats." * * * *

"A steam engine that will consume from a quarter to half a cord of wood, will drive a carriage one hundred and eighty miles in twelve hours, with twenty or thirty passengers, and will not consume sixty gallons of water. The carriage will not be over-loaded with fuel or water.

"These engines will drive boats ten or twelve miles an hour, and there will be many hundred steamboats running on the Mississippi, and other western waters as prophesied thirty years ago, by one who could predict them better than the poet can now. But the velocity of boats through the water, can never be made to equal the velocity of carriages through the air, because the resistance of water is eight hundred times the resistance of air.

"And it shall come to pass that the memory of these sordid and wicked wretches who oppose such improvements, will be execrated by every good man as they ought to be now."

"Posterity will not be able to discover why the legislature, or congress, did not grant the inventor such protection as might have enabled him to put in operation these great improvements sooner, he having asked neither money, nor a monopoly of any existing thing. The clouds of darkness will be dissipated by time. It will be clearly discovered, that to protect inventors for sufficient terms, is the only way to get the discoverics sooner."

REMITTANCE BY MAIL.—Our subscribers who receive their papers by mail, are expected to remit one dollar each, by mail, on the receipt of this number. The money may be sent by mail at our own risk and postage, or may be paid to the Postmaster, (who will receipt for the same,) at the option of subscribers. No money should be paid in advance to any agents but those who have written authority from the publisher to collect or receive the same.

FIRES IN 1845.—The aggregate loss by large fires on this continent the present year is estimated at $21,000,000, as follows: Barbadoes $2,000,000; Pittsburgh, $3,500,000: London, Canada, $500,000: Fayetteville, $500,000; Quebec, 7,500,000; Matanzas, $1,000,000; New-York, $6,000,000.

VARIETY

The printing apparatus of Cassius M. Clay, who had commenced the publication of an anti-slavery paper in Louisville, Ky., has been packed up by the citizens and sent to Cincinnati.

The Roman Citizen, of Rome, N. Y. speaking of money, says, "It is *dew* (due) in the morning and *mist* (miss'd) at night." Very bright.

Somebody,—Green we believe,—once said that he had never learned to sing but two tunes, one of which was Old Hundred and the other wasn't.

Peaches are very abundant. They have been sold in Philadelphia as low as 25 cents a basket, and in Baltimore, for six cents a peck.

The various lines of travel leading to New York have been much crowded since the arrival of the Great Britain, and the city appears quite lively.

Seventeen steamboats with an aggregate tonage of 3,215 tons, and cost of $243,000, have been built at Cincinnati within the present year.

The population of Washington D. C. has increased from 23,000 to 40,000 since 1840. Nearly 400 buildings have been erected within the past year.

One of the pipes of the new organ which is being built for the Trinity Church, is large enough to contain thirty men. Mr. Henry Erben is the builder.

The Merrimack Company at Lowell have commenced building a new mill, which is to be the largest ever built at that place, or perhaps in the United States.

A new glass factory is about to go into operation in Buffalo, N. Y. Window and other varieties will be manufactured on a large scale.

During the prevalence of the recent excessive warm weather, the price of fans at Woodworth's (late Bonfanti's) in Broadway, was up to $75 each.

A new musket has been invented at Potsdam, Eng. which is said to carry point blank 1,200 paces, and can be fired 17 times a minute.

The allowance for the French navy for the present year has been raised to the enormous sum of 120,000,000 of francs.

Messrs. Livingston and Wells are about to establish an express line to run from New York to Cincinnati, Ohio.

The cost of transporting a barrel of flour from Clevelend, O., to Boston, is estimated at only 72 cents, via Ogdensburg and Northern Railroad.

A sugar beet has been raised near Savana, Geo. which measured 24 inches in circumferance, 14 in length and weighed 11 lbs. This beet is hard to beat.

The College Libraries of this country number about 600,000 volumes. We think this would be sufficient for any one man to read.

J. H. Overton travelled one hundred and fifty miles in an open skiff, from Landry to Baton Rouge, to represent his parish in the Democratic Convention of Louisiana.

The Essex steam-mill in Newburyport, Mass., has made a dividend of *forty-two and a half per cent.* from the earnings of the mill the last year.

The fire is still burning in Pittsburg, although near five months have elapsed since the great conflagration.

A duel was lately fought in New Orleans, in which both parties fell. They fought with pistols, at five paces, and obtained mutual satisfaction.

A writer from the White Sulphur Springs, says that the keeper of the Hotel at that place, keeps 129 dogs. He must be fond of music.

A company has been formed at Zanesville, Ohio, with a capital of $50,000, for the purpose of establishing a cotton manufactory at that place.

A man was recently sentenced to imprisoument in Missouri, for being drunk. On his way to prison the sheriff got drunk, and the man escaped.

About a dozen persons have been recently indicted at Albany for vending lottery tickets. We hope the traffic will be suppressed.

A company of traders from Santa Fe, arrived at St. Louis on the 13th ult., on a trading expedition. They have brought $50,000 in specie.

Mr. Andrew Marcey will, it is said, cast $28,000 worth of bells—most of them large—within the present year, at his foundry at West Troy.

The increase of the value of real estate in England and Scotland, within the last thirty years, is stated at £35,146,104.

The receipts on the Long Island rail-road during the first sixteen days of August, were $24,140. This looks encouraging.

There is now on exhibition, in this city, the skeleton of an enormous serpent, which measures 114 feet in length, and ten or twelve feet in circumference. More particulars in our next.

A fish has been taken at New London, in which was found a Prussian coin, about the size and value of a cent. Where the fish found the money, report does not say.

Great music is anticipated from an electro-magnetic instrument, which is being constructed in Philadelphia. We may hear something more about it.

The news by the Cambria reached New Orleans in twenty-two days from Liverpool, via Halifax and Boston. This despatch is unprecedented.

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Never Look Sad.

BY T. H. BAYLEY.

Never look sad—nothing's so bad
As getting familiar with sorrow;
Treat him to-day in a cavalier way,
And he'll seek other quarters to-morrow.

Long you'd not weep, would you but peep
At the bright side of every trial;
Fortune you'll find is often most kind,
When chilling your hopes with denial.

Let the sad day carry away
Its own little burdens of sorrow,
Or you may miss half of the bliss
That comes in the lap to-morrow.

When hope is wreck'd, pause and reflect,
If error occasioned your sadness;
If it be so, hereafter you'll know
How to steer to the harbour of gladness.

At Home: Sweet Home.

From "Songs in the Night," a beautiful volume of sacred poetry, recently re-published by Mr. Perkins, of Boston.]

When burns the fireside brightest,
Cheering the social breast?
Where beats the fond heart lightest,
Its humble hopes possessed?
Where is the hour of sadness
With meek-eyed patience borne?—
Worth more than those of gladness,
Which mirth's gay cheeks adorn?—
Pleasure is marked with fleetness
To those who ever roam,
While grief itself has sweetness,
At home—sweet home!

There blend the ties that strengthen
Our hearts in hours of grief—
The silver links that lengthen
Joy's visits when most brief;
There, eyes in all their splendour,
Are vocal to the heart,
And glances, bright and tender,
Fresh eloquence impart;
Then dost thou sigh for pleasure?
O, do not wildly roam,
But seek that hidden treasure
At home—sweet home!

Does pure religion charm thee,
Far more than aught below?
Would'st thou that she should arm thee
Against the hour of wo?
Her dwelling is not only
In temples built for prayer,
For home itself is lonely,
Unless her smiles be there;
Wherever we may wander,
'Tis all in vain we roam,
If worshipless her altar,
At home—sweet home!

Beautiful Extract.

"There's something in a noble boy,
A brave, free-hearted, careless one,
With his unchecked, unbidden joy,
His dread of books, and love of fun,
And in his clear and ready smile,
Unshaded by a thought of guile,
And unrepressed by sadness—
Which brings me to my childhood back,
As if I trod its very track,
And felt its very gladness."

HARD FORTUNE.—An unlucky 'Knight of the Quill,' at the west, thus closes for the present his editorial career: "Dear readers—With this paper ceases the existence of the 'Olio!' Our number is full and complete, and we are a 'busted establishment.' We shall gather up our coat and boots, shave off our whiskers, dun a few interesting specimens of 'patrons that will pay—in promises, and then we're going for to go to some other field of operation." This may be the same chap that had become so editorially hollow, that he offered to sell himself for a *stove pipe*.

THEATRICAL. — An European correspondent of one of the Philadelphia papers writes that the danseuse Taglioni will not come to New York, because she cannot be insured the payment of *six hundred dollars per night!* and adds—"I think the public permit themselves to be too much humbugged by singers, fiddlers, players, mountebanks and buffoons—from Taglioni and Macready down to Tom Thumb." We believe there are many others of the same opinion.

HYMEN EXCLUDED FROM FLORIDA.—The laws of Florida forbid the marrying of persons without a license from the Clerk of the County Court; and these Courts have lately been abolished by an act of the legislature, thus virtually abolishing marriages altogether for the present.

NEW ORLEANS.—The Picayune of the 13th says there is no sickness, no excitement, and little of any thing moving;—even the town clock and the doctors' gigs are at a stand-still. It appears from more recent dates, however, that there is no want of excitement,—on the Texas war-subject at least.

RAILROADS.—We have on hand a variety of interesting and gratifying intelligence, which we must defer for a future number.

The Fire Damp.

ANOTHER EXPLOSION.—The west mine of the Delaware Coal Company is worked three hundred feet below the water level. For some time past the air in this part of the mine had become vitiated and the miners had declined to work in it. Some of the overseers imprudently went down to examine the pit a few days since, when the inflammable gas, or compound of gasses known as the *fire-damp*, and which had accumulated, in that part of the pit, being ignited by the flame of the lamp, which they carried, exploded with great violence, seriously injuring several persons, besides doing much damage to the works. We are glad there were no lives lost; but we do think the overseers deserved some little punishment for their gross negligence. When the means of effectual ventilation are so conveniently accessible and easily prepared, it appears no less than reprehensible, that the laborers in mines should be deprived of the privilege of breathing pure atmospheric air, to say nothing of the danger of explosions. Both money and applause have been awarded to Sir Humphrey Davy, for his invention of what is called a *safety-lamp*, to prevent explosion of the fire damp; but it would have appeared much more important in our opinion, if he had proposed a plan for ventilation which should have superseded the necessity of the safety lamp, and furnished a supply of breathing air to the laborers at the same time. Nothing more is wanting for this purpose than a large simple hose made of the cheapest kind of plain cotton cloth, extending from the top to the bottom of the pit, with a *bell muzzle*, or tunnel shaped tube at the top to be turned by a vane so as to face the breeze. Or, if there be not a breeze sufficient to force a constant current down to the bottom, a spirit lamp, being placed under the lower extremity of the hose—which should extend to within one or two feet of the bottom,—a current will be readily produced upward, and consequently a corresponding quantity of fresh air must be drawn down through the open avenues. But even admitting that mechanical power was required to maintain a wholesome ventilation, it would be but light work for a man or boy, by turning a crank connected with a blow-wheel or large bellows when there was not a sufficient current of wind to effect it. We hope those of our readers who have any friends employed in the mining buisness, will suggest to them the impropriety of exposing their lives by working in damp mines without proper ventilation.

Progress of Improvement.

There has never been a time since the days of Noah, in which great and important improvements, in all branches, were pressed forward with so much energy as at the present time. There is no branch of industry but has received important facilities within the last ten years, especially in the United States. The pressure of the times has not retarded the march of genius, nor of well-aimed enterprise. There is at present more building and constructing of railroads, steamboats, houses, factories, bridges, machinery, carriages, &c, than ever before; and yet a close observer of these things sees stronger indications of the "progress of improvement," in the style of construction, than in the quantity and extent of them. And yet, strange as it may appear, while there are so many thousands of newspapers in the country, devoted to every other subject, there is not one—*not one*—which purports to be devoted to improvement, nor to the cause of that class of people by whom this great feature of national prosperity is produced or effected. Will any scientific mechanic, or enterprising manufacturer refuse or neglect to patronize such a paper? We shall see.

PLENTY OF BUSINESS.—A desperate fellow by the name of John Randall, has lately shown a rare specimen of industry, in Coos County, N. H. He escaped from the Lancaster jail on the 11th instant, stole a horse the same night, rode it to the top of Cherry mountain, and left it—was seen on Tuesday morning, near E. A. Crawford's—on Wednesday night was seen and chased in Bethlehem—on Thursday night broke into a house there, which his pursuers had occupied a portion of the preceding day, stole provisions for a hearty meal, then broke into a second stable and stole a second horse, since which he has not been heard from.

THE WAR MOVEMENTS.—There has been much excitement for a few days past, in the South-Western section of the Union, on account of a report that 10,000 Mexicans were marching upon Texas. Gen. Gaines had called upon Gov. Mouton, of Louisiana, for 1000 troops, which were immediately raised, and the entire body of New Orleans military have offered their services to the Governor. The rumour of the approach of the Mexican army appears hardly credible, but if it be so, they will not have to wait long for business.

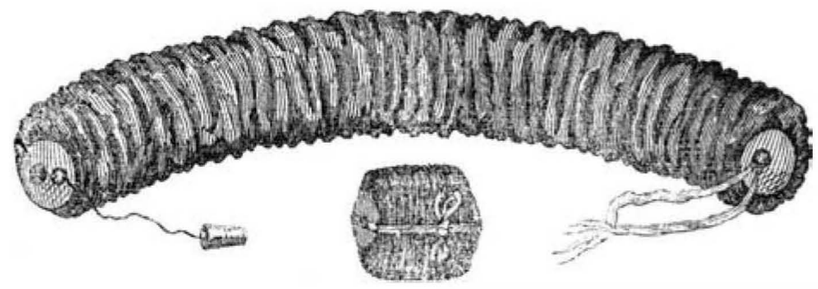
ANOTHER MASTADON.—The entire skeleton of another monstrous animal has recently been discovered in Orange County, about six miles from Newburg, and the largest of all that have ever been found. An idea of the size of this monster may be formed from the fact that the skull alone weighs 700 lbs.—the tusks are nearly two feet long, and the breadth across the hip bones is seven feet. We shall probably be able to furnish further particulars in a few days.

THE MAGNETIC TELEGRAPH.—The report of the proceedings of a recent rail-road meeting at Portsmouth, Eng., was communicated to London, a distance of 90 miles, in less than half an hour.

THE BIG GUN.—The first shot fired by the great gun for the Princeton, was with a ball made of tin, of 217 pounds weight, and a range of 30 pounds of powder. This ball was thrown about three miles.

GREAT FAIR AT PHILADELPHIA.—The Franklin Society announce a display of inventions, manufactures, agricultural products, &c. &c., to commence in Philadelphia on the 21st of October next.

THE NAUTILUS, OR IMPROVED LIFE-PRESERVER.



This curious and useful invention, which is not so well known and understood as it should be, was patented in October, '44. It appears to be the *ne plus ultra* of *life preservers*, or, more properly speaking, of buoyant belts. The peculiar excellence of this invention—usually called the Nautilus—consists in its capacity of being compressed into a small space, so as to be conveniently carried in the pocket; or of being distended sufficiently to extend round the body of a person, at the same time becoming inflated with atmospheric air, and sufficiently buoyant to sustain the head and breast of the wearer, above water. Its construction consists of two helical, or spiral springs, placed side by side, and connected to each other, and covered with oiled silk, or india-rubber cloth, each end of which is attached to a wooden head: the whole casing and heads being air and water-tight, with the exception of an aperture through one of the heads. To this aperture a stopper is fitted, being connected to the head by a cord as shown in the cut, to prevent its falling or being lost when not inserted: but the Nautilus is more perfect when the aperture is furnished with a valve, which opens inward, so as to admit the air freely, but prevent its escape. When sudden danger occurs on board vessels, the passenger who may have a Nautilus in his pocket, has only to place it at his back, take hold of the two ends with his two hands, draw them forward till they meet on his breast, and tie them together; or, which is better, connect the two ends by a hook and staple. It will readily be understood, that the elastic covering of this belt, being held in its distended form by the wires of the spiral springs, the internal air has no tendency to escape, even should the covering be by any means perforated. We should think it consistent with the interests of ship owners and insurance companies to furnish vessels with these articles, for the use of seamen; as it would evidently tend to prevent consternation in cases of danger by leakage or by fire; and prevent the premature abandonment of vessels, with their cargoes and papers. They are sold at 89 Nassau street.

Curious Arts.

TO WASH IRON OR STEEL WITH GOLD.—Mix together in a phial, one part of nitric acid, with two parts of muriatic acid, and add as much fine gold as the acid will dissolve. For this purpose gold leaf is the most convenient, as it will be the most readily dissolved. (This solution is called the nitro-muriate of gold.) Pour over this solution, cautiously, about half as much sulphuric ether;—shake the mixture; and then allow it to settle. The ether will take the gold from the acid, and will separate itself from it also, and form an upper stratum in the phial. Carefully pour off this auriferous ether into another phial, and cork it close. Wash any piece of steel or iron with this ether, and immediately plunge it in cold water, and it will have acquired a coat of pure gold. With this also, any flowers or letters may be drawn or written, even with a pen, and will appear perfectly gilt. The steel or iron should afterwards be heated as much as it will bear without changing colour, and if the steel be previously polished, the beauty of the gilding may be much increased by burnishing with a cornelian or blood-stone.

TO CUT GLASS WITH A PIECE OF IRON.—Draw with a pencil on paper, any pattern to which you would have the glass conform; place the pattern under the glass, holding both together in the left hand, (for the glass must not rest on any plane surface;) then take a common spike or some similar piece of iron,—heat the point of it to redness, and apply it to the edge of the glass; draw the iron slowly forward, and the edge of the glass will immediately crack; continue moving the iron slowly over the glass, tracing the pattern, and the chink in the glass will follow at the distance of about half an inch, in every direction according to the motion of the iron. It may sometimes be found requisite, however, especially in forming corners, to apply a wet finger to the oposite side of the glass. Tumblers and other glasses may be cut or divided very fancifully by similar means. The iron must be reheated as often as the crevice in the glass ceases to follow.

A DEEP ENTERPRISE.—It having been ascertained that a mountain near Harrisburg, Pa., consists almost entirely of immense beds of iron ore, and of excellent anthracite coal, the enterprising proprietors, instead of sinking shafts, and raising this mineral wealth in the ordinary way, have extended a level *railroad tunnel* through the heart of the mountain; thus securing easy access to the beds of coal and iron, which are piled up to the height of 1160 feet above the level of the road. It is calculated that this mountain alone contains coal enough to supply the city of New-York for 26,000 years.

THE IRON CITY.—In some parts of Pittsburg the cinders and soot from the many furnaces so pervade the atmosphere that they often fall on the faces and dresses of the ladies as they walk the streets. The only remedy in such cases, is to blow off the flakes of soot, as an attempt to wipe them off would only make matters worse. Hence it is said that the ladies of that city often come to *blows*.

TO RESTORE FLOWERS.—Flowers which have been kept in water some hours and begin to droop, may be again revived, by placing the stems in hot water. When the flowers have revived, the stems may be cut off as far as they had been in the hot water, and the flowers being again placed in cold water they will continue fresh some time longer.

WHAT A STORY.—"Boston is said to contain upwards of five hundred gambling houses, and at least 1,000 professed gamblers," says the N. Y. "Mechanic and Farmer." We think our neighbours must have meant Paris or London, instead of our good, sober and honest Yankee Boston.

MORE ANNEXATION.—A Bavarian dignitary being ordered to report to the king some plan to prevent the extensive emigration to the United States, suggested as the only remedy, "the annexation of the United States to Bavaria."

DRILLING AT WEST POINT.—A correspondent of the Courier says that while the artillery are practicing with mortars, the infantry are drilling directly in front, so that all the shells pass directly over their head. Very interesting.

Interesting Experiments.

TO LIGHT A CANDLE BY APPLICATION OF ICE.—Attach to the wick of a candle, a small piece, or globule of potassium (the metallic base of potass) of the size of a small shot. Apply an icicle or point of ice to the metal, and it will instantly inflame. *Note.*—This curious substance, which has the peculiar property of being ignited by coming in contact with ice or water, was originally discovered by Sir Humphrey Davy. It is produced by making pure potass a part of the circle of a powerful Voltaic battery. It cannot be preserved but by being kept immersed in naphtha, a kind of oil, of which oxygen is not a constituent.

TO FORM LETTERS OR FLOWERS OF REAL FLAME—Provide a tin chest of about eighteen inches in length, equal in height, and one inch in breadth.—Chalk any design of letters or flowers on the face of this chest, and pierce each line with rows of small holes, which should be about half an inch distant from each other.—Make an aperture at the top, through which pour about a pint of a mixture of rum and spirits of turpentine. Place two or three lamps under the bottom of the chest (which must be raised a little from the floor for that purpose) to warm the spirits, but not so as to cause them to boil. Stop the aperture at the top, and after eight or ten minutes (which time should be allowed for the vapour to expel the athmospheric air, which otherwise would cause an explosion) apply the flame of a lamp to the pierced lines—in an instant, all the lines will be covered with flame, which will continue till the the spirits are exhausted.

CRYING AND SINGING.—Mr. Henry Smith, well known as "the razor-strop man," has recently delivered several interesting temperance lectures, from one of which, the following is an extract:

"When the meeting was over, I told my wife I would try it (temperance) for one month. I did; and at the end of the month I found myself more comfortable. When I was a drunkard, Wife cried, Mother cried, John cried, Ann cried, Mary cried, Ted cried; but I had been a temperance man only a month, before Wife sung, Father sung, Mother sung, John sung, Mary sung, Ted sung, Grandfather sung, and I sung; and I bought a frying pan and I put it on the fire, and put a good stake in it and that sung, and that is the singing for a working man when he is hungry. Finding myself much better, I went and signed the pledge for life, and I hope I shall hold on."

A CURIOUS CALCULATION.—The total loss by the late fire in this city, is estimated at $6,000,000, at the least. The duration of the conflagration, was about eight hours. The average loss was of course $750,000 per hour,—$3,125 per minute; and $52, per second. Thus it appears that the average destruction of property for the space of eight hours was equal to what would have been done by four men with shovels at shovelling a heap of silver dollars from one of the piers, or from the deck of a vessel into the sea.

LIVE STOCK ON RAILROADS.—Gerard Ralston, writing to the Railroad Journal from London, says, he thinks the American companies do not lay themselves out for carrying cattle, horses, sheep, pigs, poultry, &c., as much as they ought. In Great Britain the transportation of animals is a source of very large and increasing profit. The loss by driving live stock to market is greater than the expense of conveying them in quick and comfortable railway trains.

LONG ISLAND RAILROAD.—Some evil-minded persons who delight in mischief, continue to commit depredations on this road, removing the rails, &c., but the company have taken prompt measures for securing the safety of passengers by sending a pilot engine some distance ahead of the trains, to see that all is right: also for the detection of the villians. We hope the penalties for this kind of offences will be put on a par with that of firing dwelling houses.

OUR ADVERTISEMENT.—Every person who looks at this paper, is particularly requested to examine our advertisement at the head of the first column, on the first page.

Religious Intelligence.

Under this head, it is difficult to write, unless the building and decorating of churches, ordaining of ministres, or the fashionable movements in certain places amongst some classes of grown up people, who having become tired of dancing, have decided to join the church,—may be received as religious intelligence. The fact is, or appears to be, that a total indifference to the subject, farther than the fashion or the honor of this world requires it, pervades all sects and denominations, beyond any precedent for the last forty years, at least. Our Missionaries appear to have accomplished nothing of importance for some time past, and some appear to have but little hopes that they ever will. Whatever may be the occasion of this apathy, this one thing is abundantly evident; that there never was a time in which the evidences of the truth and divine origin of the sacred Scriptures were more conspicuous or abundant, nor in which there was greater inducement in a rational sense, for people to become truly pious and obedient to the Gospel injunctions, than there is at the present.

THE AUTHENTICITY OF THE BIBLE.—The Old Testamnt consists principally of historical and prophetic writings, whereby its authenticity is established to the satisfaction of all who duly examine its pages, comparing one part with another. It is also confirmed by the New Testament which contains all the requisite instruction with regard to the duties of men; presents as history many events which had been described in the prophesies of the Old Testament, and abounds with promises of life and joy to the obedient, but with threatenings of punishments intolerable to all who reject and disobey its divine precepts. This Book does exist, and must have been written by either good men or by evil men. If good men wrote it, it must have been by divine inspiration; for so they tell us; and good men would not lie. But to believe that *evil* men would write such a book against themselves, would require more marvelous faith, than is required to beleive in the verity of all the miracles therein recorded.

THE UTILITY OF TRIBULATION. — There can be no perfect happiness without a knowledge of misery. The excellence of righteousness can not be made manifest, without a contrast of sin: and no man can feel the sweet satisfaction of righteousness, unless he has been on probation; and no situation can be properly considered a state of probation, unless there are some failures therein. Therefore, it becomes the holiness of the Divine Being, in order to produce the greatest degree of rational happiness, to place his creatures on probation, although he knows that some of them will sin, and fall under condemnation;—the happiness of the obedient being thereby promoted, not by the misery of those who fall, but by the consciousness of having escaped. God will give to men the praise of righteousness and obedience, while they, with abundant propriety, will give to God all the glory of their salvation.

RELIGIOUS MOVEMENTS IN FRANCE.—It is reported, that in a town containing about 10,000 inhabitants, no less than 3,000 have recently renounced Popery, to attach themselves to the Protestant worship.

THE BIBLE.—We are so accustomed to the sight of a Bible that it ceases to be a miracle to us. It is printed just like other books, and so we forget that it is not just like other books. But there is nothing in the world like it, or comparable to it. The sun in the firmament is nothing to it, if it be really—what it assumes to be—an actual direct communication from God to man.—*Thomas Erskine.*

OUR LEAD MINES.—The number of hands engaged in mining and smelting in Iowa, Wisconsin and upper Illinois, is increasing from 30 to 50 per cent. every year: the agricultural population and business of that region are increasing in an equal ratio. A new mine was discovered at Galena two or three weeks ago. There is lead enough in that mineral region to supply the civilized world for a thousand years.

A DANGEROUS ARTICLE.—A man in Washington County, Md., a few days since, returning from Smithburg, took home with him a jug of whiskey. The consequence was, that two of his children gained access to the jug, and, unnoticed by their parents, drank so much of the poison that they soon changed colour, foamed at the mouth, and died in convulsions.

EFFECTS OF HEAT.—Cast iron expands by 200 degrees of heat 1-278 of its bulk. Brass expands 1-177. Mercury 1-55, water 1-23. Oils 1-12, Alcohol 1-9.

Cast iron melts at 2786 degrees of heat. Copper melts at 1996. Silver at 1873. Brass—1672. Lead 615. Tin—442. Wax—142. Water boils at 212. Water freezes at 32. Mercury solid at 40 below zero.

THE ART OF PETRIFACTION.—We learn from the Sun, that a patent has been granted to a Troy gentleman, for a process by which a human body may be petrified as hard and solid as marble, in about two weeks.

INTERESTING EXCURSION:—*Pic-Nic and Banner Presentation.*—The Harmony and Jefferson Divisions, Nos. 5 and 7, Sons of Temperance, have selected the grove adjoining the far-famed West Point Iron Works, in the midst of the most romantic scenery of the Hudson, at "Cold Spring," for a pic-nic and banner presentation, on Thursday, Sept. 11th. All that can be required to render the excursion agreeable, will be provided; and those who delight in the magnificent works of nature and art, will find this a choice opportunity. The commodious steamer Mutual Safety will leave the foot of Hammond-street at half past 6; Canal-street at a quarter to 7; Barelay street at 7; Market-street at a quarter past 7; and Delancey-street at half past seven o'clock, precisely. Tickets for the excursion only 37 1-2 cents.

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Most numerous are the inventions lost to the world for [illegible] inventors, being poor, could not bring them out. To remedy this evil to some extent, the following plan is suggested.

RARE PROJECT.

G PECK & CO. having, and being offered, several new inventions, worthy to be tested and brought out, present to the public the following liberal offers.

One invention promises great usefulness to most cities, villages, and farmers; one, great aid to agriculture. One, greater safety and cheapness to rail-road conveyance; one a great saving of expense, time and toil in education, &c.

They require means to bring them into use. If many will furnish each a little the burden will be light—the success almost certain, and the advantage the greater; and this advantage the inventors will gladly share with the helpers. Incurring much expense, and risking much themselves, it cannot be presuming too much to trust that an intelligent public will see it to be liberal, and wise to risk a little and invest the small sum proposed on the terms here offered.

It is little any can lose if he were to get no return, while we must lose far more, even for advertising, if none accept our offers. But tbey will have some return, and may much gain. Let then each send us his name and $2, or 25 cents weekly for ten weeks, and secure the advantages of these inventions.

We add one other consideration. Had Fitch, who first applied steam to propel a boat, and was the real first inventor of steam boats, received a little aid, steam boats would have been in operation more than 50 years ago, and our country would have had the undisputed honor of the invention. But he exhausted his means—none would help—and though he knew it was worth millions, be died in poverty, and our country was the loser for a half century.

WORTHY ATTENTION.

A share or town right of a valuable patent—50 or 100 acres of good farming land; $2, $30, or $85 cash; a copy of the circular interest tables, or a useful Essay, to be had on easy terms.

The patent share will be sent to any one who sends us $2, or 25 cents weekly for ten weeks, which share will be worth $5 or more.

The town right will be his who procures 25 share subscribers and sends us the money. The 50 acres his who sends us the money for 150 subscribers within three months. The 100 acres his who sends us for 300 in four months. The $2 his who sends us the $2 each for 12 subscribers in 2 months. $30 his who sends for 100 in 3 months, $85 his who sends for 250 in 6 months. The interest tables or Essay shall be his who sends us immediately the names of each waggon, carriage, plough or harness maker, of each farmer who keeps bees or silk worms, of owners of furnaces or forges, of each physician, minister, teacher, miller, tanner and merchant of the village or town where he lives, twenty-five names or more; and also a share of the patent right if he sends 25 or more names and 25 cents cash within one month.

The patent share to each of those who pay $2 within 8 weeks from next September 1, or before, will embrace three inventions; to those who pay in the next 5 weeks, two inventions; and but one to others, and not this unless cash is received in 4 months, unless we choose. The essay or tables will also be his who pays before September 20th. What we desire is speedy work—hence these large premiums. Most important inventions will thus be secured, and a profitable share to each.

We also offer to anyone who will send us $10, $30, $75 or $125, to give him 3, 9, 27 or 54 shares one-third in each of three inventions, or a town right of one, two or three of the patents, and a privilege to sell rights, at great profit; and he may commence at once. We can give good business of this kind now. If our project meets with the favor we expect we shall be able to give a great deal of business of this kind, and thus greatly promote enterprize and industry. We have the best machine to clean wheat of smut, garlic, &c.; price $75. Over 70 have been put in operation in one county in Pennsylvania. We have also the best cultivator for tilling corn and puttiug in wheat and rye, from $6 to $15. Also the neatest, handiest and swiftest straw cutter of its size, for $12. Office for orders at room 13, 25 Pine street, next to the Custom House.

The inventions will be of different values, and will be put into such number of shares as will make each share worth $5 or more. We will dispose of the rights, keep the accounts, and pay to share holders the dividends. We shall also from time to time, quarterly or oftener, send them a paper giving them a full account of the inventions, as far as it will be best to publish it. We shall send them the first in September. Let it announce that subscribers are already in to secure the whole project. It will not fail if no more subscribe than we already have. We can do a little, and each who helps will aid us to do more; thus none will lose, but if many help, the better will it be to each. One of the most promising inventions will be very costly to start. We want 10,000 subscribers for it: but it will be worth ten times the cost; and it is certain of success, it has been so far tested. The others are very excellent in promise.

The inventions are very important; the land good in this State or in Pennsylvania; the Tables useful, and the Essay on a subject of deep interest to all; and the periodical we shall occasionally send, free of charge, will be of general interest to farmers, mechanics, patentees, physicians, ministers, and owners of minerals, and to all.

It is thus the interest of all to push this project. Let then each improve this offer at once, and have the satisfaction of aiding to bring out great inventions that promise vast benefit to mankind, and good profit to the helpers, as well as timely aid to some worthy inventors, who are struggling with poverty, whom we greatly desire to aid. Now is the WORD! Now or never. If QUICKLY done, it will be DONE and WELL done, and a GOOD THING done.

It will be easy for two or more to unite, write their names in a letter, put in the money, and direct to G. Peck & Co., New York. The mail will bring it safe, or we will risk it, and pay the postage.

New York, August, 1845. G. PECK & CO.

Editors who will notice this rare project and advertise it, will promote a great public good, and shall share liberally in the advantage they promote. For 13 insertions of the project in full, they shall receive 5 of the three right shares.

Besides the guarantee, which the expense we have already incurred for patents, models, machines, advertising, &c. to make these proposals, gives, to warrant confidence at least to the little extent we ask, we are favored with the following certificate, signed by Hon. R. H. Morris, late mayor and present post-master, and by Hon. F. A. Tallmadge, the present recorder of New York:—

"Messrs. G. Peck & Co. wishing the public to favor their business, this certifies, that, from our personal acquaintance we are assured that confidence in their proposals will not be misplaced.

ROBT. H. MORRIS,
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"New York, August, 1845."

N. B.—We have one invention, well tested, worth $100,000, the profits of which from this State or Massachusetts will be three times that sum in the next five years. It needs a capital of $25,000. A half can be had for this sum, one half as capital, and an equal sum to be paid out of the half of the first avails.

☞ All our travelling and city agents will have receipts to give, signed by us. Postmasters, Editors, and others, acting as local agents, in towns and villages where they are known, will give their own receipts, which will be duly acknowledged by G. Peck & Co.

au22

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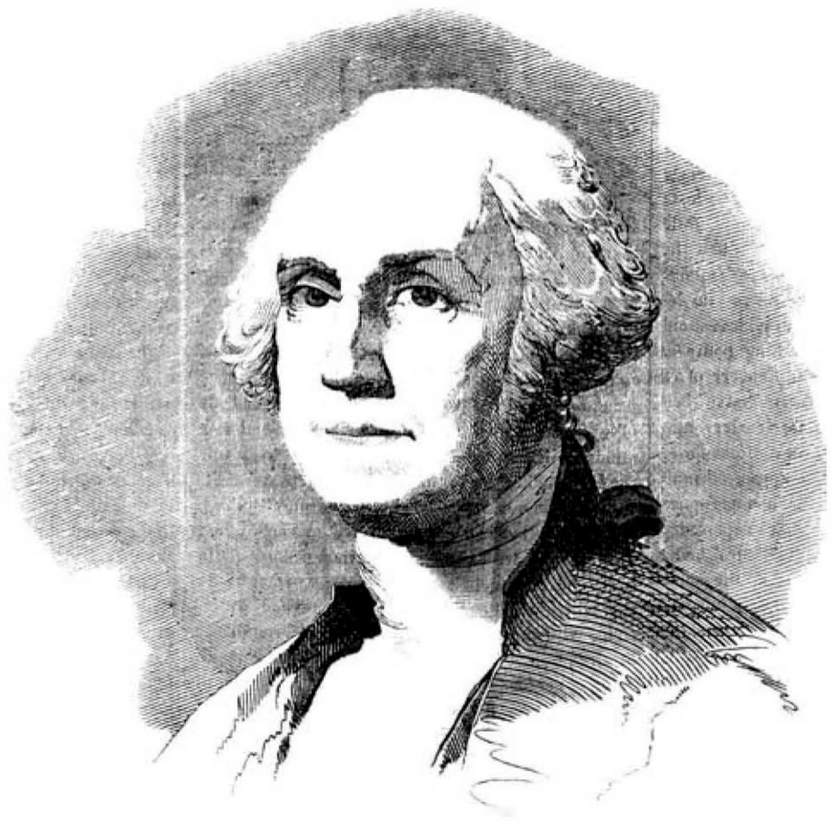

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